

SOUTH CAROLINA HEALTH ALERT NETWORK
Division of Acute Disease Epidemiology
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Clinician Public Health Advisory **Enterovirus Echo 9 Meningitis in South Carolina**

1. Background Information

Enterovirus (aseptic) meningitis is commonly seen in South Carolina, most typically from mid-summer to early fall. This year, however, the "enteroviral meningitis" season appears to have started earlier and more briskly than usual and this may presage further widespread summer outbreaks. In Aiken County, approximately 70 cases were diagnosed in April and May, and in June several dozen additional cases were seen in Greenwood, Abbeville, Anderson, Oconee, Pickens and Greenville counties. Scattered cases have also occurred in the midlands (Lexington and Richland counties). Most cases have occurred in children and young adults. No deaths are known to have occurred. PCR tests of spinal fluid have confirmed the presence of an enterovirus and viral cultures performed by the DHEC State Laboratory have allowed a more precise etiologic diagnosis yielding Echo 9 virus from CSF collected in five different counties. To date it thus appears that Echo 9 is the primary circulating enterovirus causing aseptic meningitis in the state. Echo 9 has also been implicated in an ongoing outbreak in Georgia (over 120 cases to date this year in the Augusta area alone), and is also being reported from outbreaks in several western states. National surveillance data from the US Centers for Disease Control (CDC) shows that one enterovirus group usually predominates each summer: for example, Coxsackie B5 in 2000 and Echo 18 in 2001. Echo 9 has not been the predominant group since 1995. In the eight years since then a large number of susceptibles may thus have accumulated, apparently setting the scene for a big "Echo 9 year".

Although individual cases of viral meningitis are not notifiable in South Carolina, clusters of cases and outbreaks should be reported. Because of the early outbreak activity described above, DHEC will be monitoring viral meningitis activity during the summer through periodic contacts with hospitals, emergency departments, infection control practitioners, and microbiology laboratories.

Prevention of enterovirus infections is problematic. Efforts, which focus on individual cases of meningitis, are rarely helpful because during outbreaks, infection and community transmission are extremely widespread. For example, for each patient with clinically significant illness there may be several hundred to a thousand other persons in the community who are infected and also silently transmitting virus. In the absence of effective vaccines, immunoglobulins or antiviral prophylaxis, the most important preventive measures remain general hygiene and hand washing. Hand washing is especially important because virus can be spread via the fecal-oral route as well as from respiratory secretions.

2. Action Points

- Clusters of cases of aseptic meningitis should be reported to your county health department or to the DHEC Bureau of Disease Control in Columbia (803-898-0861)
- CSF and throat swabs may be submitted to the DHEC state laboratory where the virology section (896-0820) may be consulted regarding collection, storage and shipment of specimens. (Note: if there are many cases in a community outbreak, it is usually NOT necessary or indicated to perform viral cultures on every single case. For example, 8 to 10 cultures from a single hospital or community will normally be sufficient to identify the viral agent which is "going around".)
- Patients and the public often require education about the difference between "bacterial meningitis" (meningococcal, pneumococcal etc.) as opposed to routine and relatively benign cases of "viral meningitis".
- Messages about hygiene and hand washing, important at all times, should be especially reinforced during outbreaks of enteroviral disease

3. Internet Information Resources from the CDC (home page: www.cdc.gov)

- **Viral (Aseptic) Meningitis** (fact sheet)
www.cdc.gov/ncidod/dvrd/revb/enterovirus/viral_meningitis.htm
- **Non-Polio Enterovirus Infections** (fact sheet)
www.cdc.gov/ncidod/dvrd/revb/enterovirus/non-polio_entero.htm
- **Enteroviral Surveillance - United States, 2000-2001** (surveillance summary)
MMWR November 22, 2002 (Vol 51/No. 46) available at:
www.cdc.gov/mmwr/index2002.htm
- **Outbreak of Aseptic Meningitis Associated with Multiple Enterovirus Serotypes - Romania, 1999** (outbreak report)
MMWR July 28, 2000 (Vol. 49/No. 29) available at:
www.cdc.gov/mmwr/index2000.htm

4. Reporting

Clusters of cases of aseptic meningitis should be reported to your county health department or to the DHEC Bureau of Disease Control in Columbia (803-898-0861)

District/County Health Department phone numbers:

Statewide Urgently Reportable Conditions and Consultation number (24hr/7day): 1-888-847-0902